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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,967	06/19/2005	Oscar Deurloo	US020634	8656

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EXAMINER	
TRAN, THUY V	

ART UNIT	PAPER NUMBER
2821	

MAIL DATE	DELIVERY MODE
05/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,967	DEURLOO ET AL.	
	Examiner	Art Unit	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06/19/2005 & prel. amendment conc. filed*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-19* is/are rejected.

7)☒ Claim(s) *10 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/19/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the Applicants' communication filed on 06/19/2005 and preliminary amendment concurrently filed therewith. In virtue of this amendment, claims 1-19 are currently presented in the instant application.

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Priority

2. Applicants' claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) is acknowledged.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 06/19/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings Objections

4. The drawings are objected to because all the boxes in Figs. 1-2 and 4 are not provided with textual characters for clarity. Corrected drawing sheets in compliance with 37 CFR

1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections/ Minor Informalities

5. Claims 5, 9, 14, and 17-19 are objected to because of the following informalities:

Claim 5, line 2, "the" should be changed to --a--;

Claim 5, line 3, "the" should be changed to --a--;

Claim 9, line 2, "HCBF" should be changed to --HBCF--;

Claim 14, line 2, "the" should be changed to --a--;

Claim 14, line 3, "the" should be changed to --a--;

Claim 17, line 1, "12" should be changed to --16--;

Claim 18, line 1, "12" should be changed to --16--; and

Claim 19, line 1, "an" should be changed to --a--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Erhardt (U.S. Patent No. 6,204,614 B1).

With respect to claim 1, Erhardt discloses, in Fig. 1, a bi-state power operation of a HID lamp system and a corresponding method comprising (1) determining (via [10]) a power mode control selection, (2) determining (via [200]) a modulation to generate a driving signal based on the determined power mode control selection, (3) generating (via [200]) a driving signal base on the determined modulation, and (4) applying the generated driving signal to the HID lamp [100].

With respect to claim 2, Erhardt discloses that the power mode control is selectable between a high power mode and a reduced power mode (see col. 4, lines 42-47).

With respect to claim 19, Erhardt discloses, in Fig. 1, a system to provide bi-state power operation of a HID lamp system [100] comprising (1) means [10] for determining a power mode control selection wherein a high power mode and a low power mode are selectable (see col. 4, lines 42-47), and (2) means [200] for determining a modulation to generate a driving signal based on the determined power mode control selection.

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
>
> The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent

resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-7 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamoi et al. (WO 02/098186 A1; hereinafter "Kamoi").

With respect to claim 1, Kamoi discloses, in Figs. 15-17, a bi-state power operation of a HID lamp system and a corresponding method comprising (1) determining (via [80, 120]; see Fig. 15) a power mode control selection, (2) determining (via [50]; see Fig 15) a modulation to generate a driving signal based on the determined power mode control selection, (3) generating (via [60, 40]; see Fig. 15) a driving signal base on the determined modulation, and (4) applying (via [60, 40]; see Fig. 15 the generated driving signal to the HID lamp [L].

With respect to claim 2, Kamoi discloses, in Fig. 16, that the power mode control is selectable between a high power mode and a reduced power mode (at rated power 100% and reduced power of 80%; see Fig. 16).

With respect to claim 3, Kamoi discloses, in Figs, 16-17, that the generated driving signal is a low frequency square wave responsive to determining a high power mode control selection.

With respect to claim 4, Kamoi discloses, in Figs, 16-17, that the generated driving signal is a high frequency square wave responsive to determining a low power mode control selection.

With respect to claim 5, Kamoi discloses, in Figs, 16-17, that determining a power mode selection includes determining a power mode transition point (at point between high frequency drive and low frequency drive; see Fig. 17) for switching between a high power mode and a low power mode.

With respect to claims 6 and 7, Kamoi discloses, in Figs, 16-17, that the power mode transition point is selectable or variable (depending upon selected dimming ratio).

With respect to claim 19, Kamoi discloses, in Figs. 15-17, a system to provide bi-state power operation of a HID lamp system [L] comprising (1) means [80, 120] (see Fig. 15) for determining a power mode control selection wherein a high power mode (at rated power of 100%; see Fig. 16) and a low power mode (at dimming or reduced power; see Fig. 16) are selectable, and (2) means [50] (see Fig. 15) for determining a modulation to generate a driving signal based on the determined power mode control selection.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 8-9 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi.

With respect to claim 8, Kamoi discloses all of the claimed limitations, as expressly recited in claim 1, except that a HBCF (half-bridge commutating forward) circuit is used for generating the driving signal. However, this difference is not of patentable merits since both full-bridge and half-bridge converters have been commonly used in the art for generating AC driving signals to the lamps (see prior art of record to Hui et al.; Fig. 4). Therefore, to modify the lamp system of Kamoi by employing a HBCF converter in lieu of the full-bridge converter

for generating the AC driving signal to the lamp upon a particular application or an environment of use would have been deemed obvious to a person skilled in the art.

With respect to claim 9, Kamoi obviously discloses that determining a modulation includes producing a first modulation signal and a second modulation signal for enabling the HBCF circuit to generate the driving signal (as a result of the modification addressed in claim 8).

With respect to claims 12-18, Kamoi discloses all of the claimed limitations, as expressly recited in claim 1-7, except for a computer readable medium having computer executable instructions comprising a computer readable code for determining a power mode control selection and a computer readable code for determining a modulation. In other words, this relates to computer programming instructions. However, this difference is not of patentable merits since both the selector [80] and controller [120] of Kamoi are programmable and providing computer code instructions for an automatic operation has been a common practice in the art (see prior art of record to Erhardt, US Patent No. 6,583,588 B2). Therefore, to provide the system of Kamoi such a computer readable medium with the claimed codes for an automatic operation would have been regarded as an obvious development to a person skilled in the art.

Allowable Subject Matter

11. Claims 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A method for providing bi-state power operation of a HID lamp system wherein the first modulation signal and the second modulation signal comprise high frequency square wave signals having the same frequency but opposite phase and wherein the signals are simultaneously applied to the HBCF to generate a high frequency drive signal, in combination with the remaining claimed limitations as called for in claim 10; and
- A method for providing bi-state power operation of a HID lamp system wherein the first modulation signal and the second modulation signal comprise high frequency square wave signals alternated with zero signal, in combination with the remaining claimed limitations as called for in claim 11.

Citation of relevant prior art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Prior art Hui et al. (U.S. Patent No. 7,119,494 B2) discloses an electronic ballast for HID lamps;

Prior art Erhardt (U.S. Patent No. 6,583,588 B2) discloses a system and method for automatic control of HID lamps;

Prior art Nerone (U.S. Patent No. 5,717,295) discloses a lamp power supply;

Prior art Troy (U.S. Patent No. 5,327,048) discloses a bi-level lighting circuit control system for HID lamps;

Prior art Gordin (U.S. Patent No. 4,994,718) discloses a method and means for dimming ballasted lamps; and

Prior art Carl (U.S. Patent No. 4,931,701) discloses a bi-level ballast circuit for HID lamps.

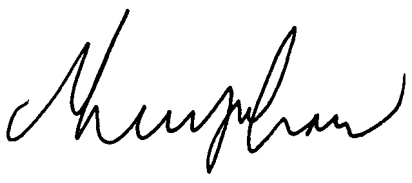
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05/26/2007



THUY V. TRAN
PRIMARY EXAMINER